



iDigi Wi-9P Starter Kit ZB

ZigBee Coordinator Configuration Recovery Procedure

ISSUE

The Wi-9P is not able to properly discover devices on the mesh network, because the XBee module connected to the Wi-9P module serial port is misconfigured or has the wrong firmware.

SOLUTION

Update the XBee module with the appropriate coordinator firmware. In addition, you will also need to change the baud rate setting to 115,200.

PROCEDURE

1. Make sure the XBee module is attached to its RS232 carrier board (or USB carrier board if your PC is not equipped with a serial port).

You can use the serial or USB cable that is included in your iDigi Wi-9P Starter Kit.

Connect the corresponding cable to your XBee carrier board and your PC.

2. Download the XCTU utility on your PC:
http://ftp1.digi.com/support/utilities/40002637_c.exe

You will use this utility to update the firmware of your XBee module.

Make sure to save it to a known directory on your PC.

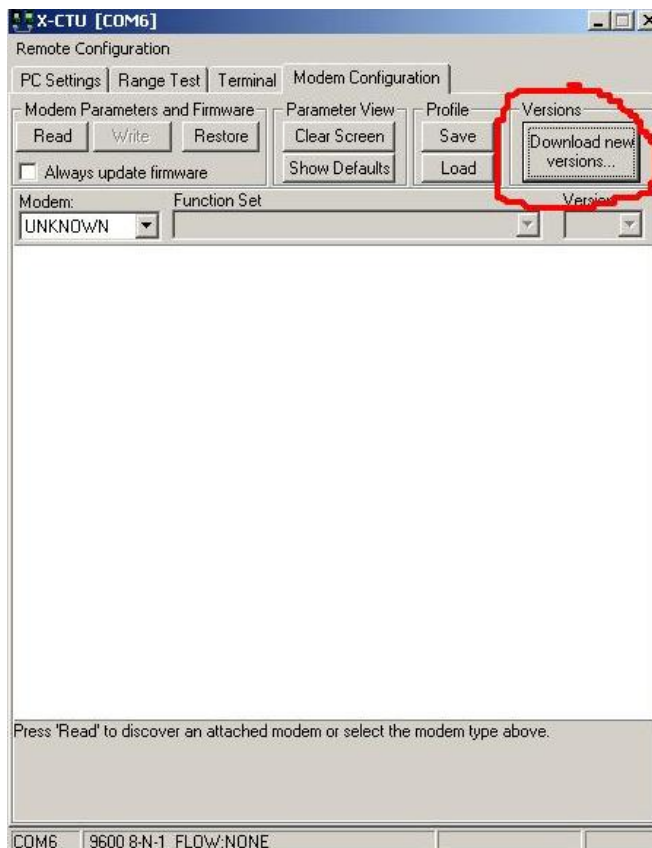
3. Download the new ZB Coordinator/API firmware:
http://ftp1.digi.com/support/firmware/82001817_C.zip

You will update the XBee module using this firmware.

Make sure to save it to a known directory on your PC.

4. Prepare the XCTU utility for updating the firmware on the XBee module

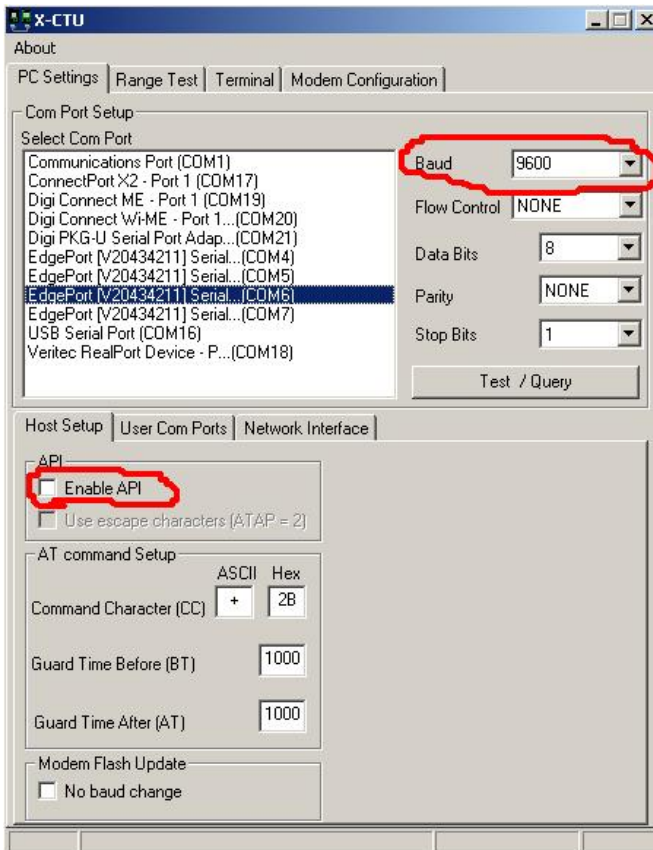
- Open the XCTU utility
- Click on the 'Modem Configuration' tab
- Now click the 'Download new versions' button
- The 'Get new Versions' dialog will open
- Click the 'File' button and point it to the ZIP file (82001817_C.zip) you downloaded in step 2
- Click the 'Done' button.



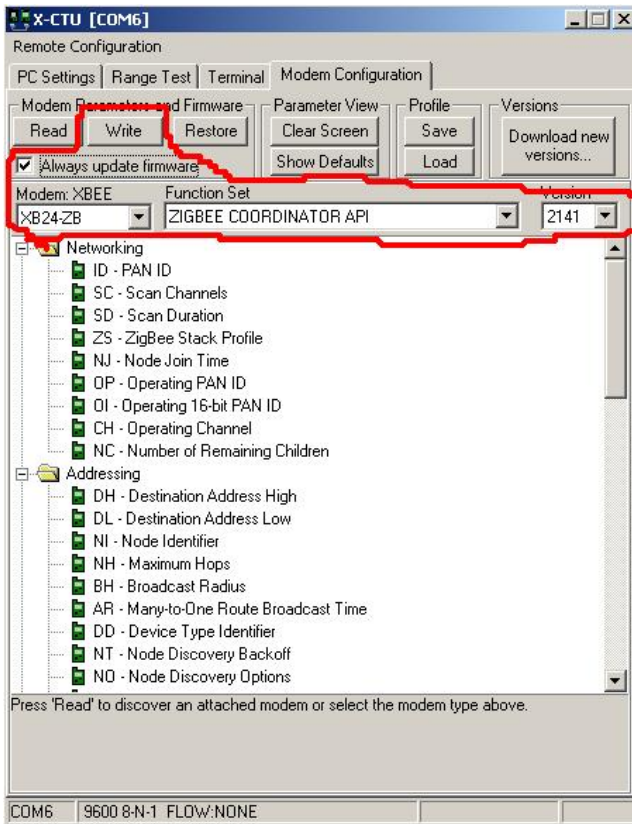
5. Update the XBee module firmware using XCTU

- Open XCTU and click on the 'PC Settings' tab
- Select the COM port connected to the XBee module (which is on the RS232 or USB board)
- Select a baud rate of 9,600
- Click on the 'Host Setup' tab

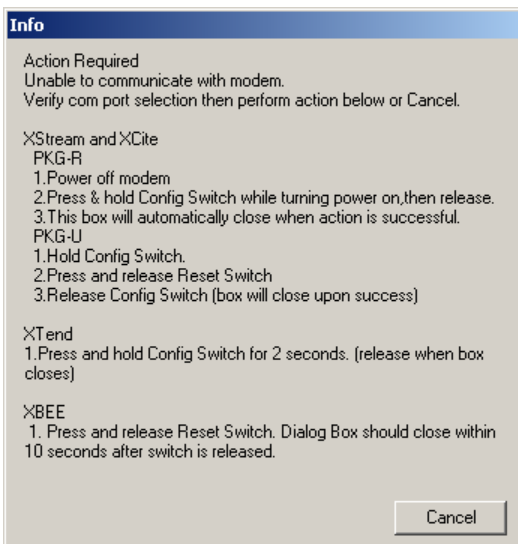
- Make sure the 'Enable API' box is unchecked



- Now click on the 'Modem Configuration' tab.
- Select 'XB24-ZB' under 'Modem: XBee'
- Select 'ZIGBEE COORDINATOR API' under 'Function List'
- Select '2141' under 'Version'
- **Note:** The option '2141' will not be visible if you did not pick the proper firmware version as outlined in step 2!
- Check the 'Always update firmware' box
- Click on the 'Write' button to initiate the firmware update



After a moment, you will see a dialog box asking you to reset the XBee module.



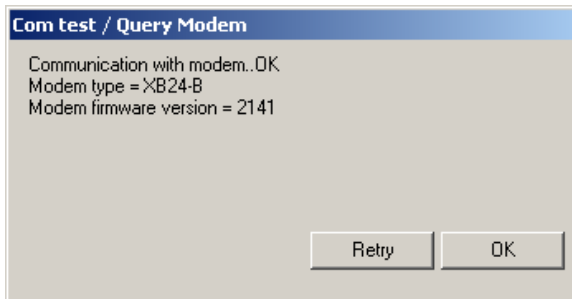
Now press the reset button on the XBee carrier board.

After pressing the reset button, XCTU will indicate that it is in the process of programming the XBee module.

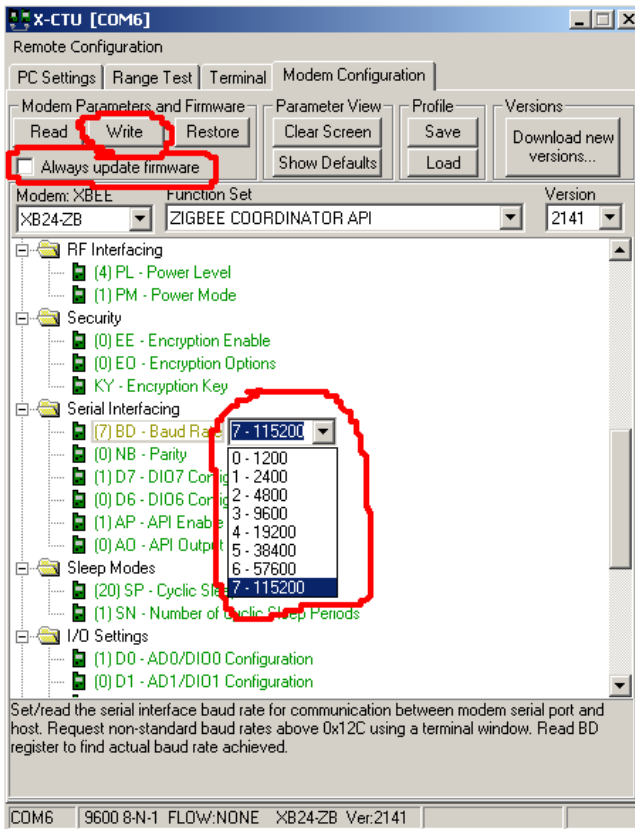
If the dialog box comes up again, simply ignore it by clicking 'Cancel'.

At this point you have successfully updated the firmware of your XBee module!

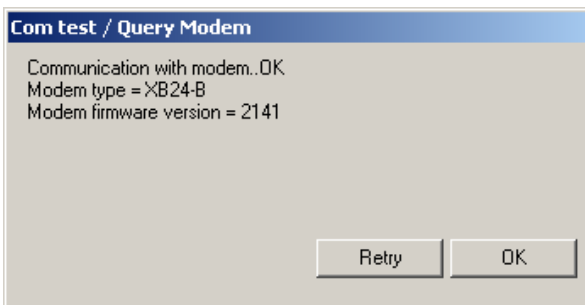
Note: You can verify the successful firmware update by going back to the 'PC Setting' tab, selecting the 'Host Setup' tab, checking 'Enable API', and then selecting the 'Test/Query' button. The modem should respond with its firmware version (see below).



- Now go back to the 'Modem Configuration' tab
- Press the 'Read' button
- Scroll down to the 'Serial Interfacing' section
- Click on ' BD - Baud Rate' and change the value to '7 – 115200'
- Now uncheck the 'Always update firmware' box and press the 'Write' button



Note: You can verify the successful firmware update by going back to the 'PC Setting' tab, selecting the 'Host Setup' tab, checking 'Enable API', and then selecting the 'Test/Query' button. The modem should respond with its firmware version (see below).



6. Now reconnect the XBee module to serial port D on the Wi-9P development board using the serial cable
 - Make sure you power cycle the Wi-9P module and wait about 45 seconds to complete the boot process

Final Step: Login to the web interface, go to Configuration -> XBee Network, and your ZigBee devices should now be visible!